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## California Regional Water Quality Control Board Central Valley Region



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Ms. Tam M. Dudoc, Chair  
State Water Resources Control Board  
P.O. Box 100  
Sacramento, CA 95812

### QUARTERLY REPORT FOR PILOT PROGRAM UNDER THE MEMORANDUM OF UNDERSTANDING

The 29 June 2005 Memorandum of Understanding (MOU) among the Central Valley Regional Water Quality Control Board (Central Valley Water Board), the State Water Resources Control Board, the California Department of Pesticide Regulation, and the Agricultural Commissioners of Glenn County and Butte County specifies activities in support of the Central Valley Water Board's Irrigated Lands Conditional Waiver Program. These support activities constitute the MOU Pilot Program that will be effective for 24 months, or until 30 June 2007.

As required by the MOU, the staff liaisons from the Central Valley Water Board and the Agricultural Commissioners of Glenn County and Butte County submit Quarterly Reports of the activities performed under the contract and any recommendations to improve the MOU Pilot Program.

The Third Quarter 2006 Reports from the three staff liaisons are attached. If you have questions regarding this Report or the MOU Pilot Program, please contact Ms. Margaret Wong at (916) 464-4857, or by e-mail at [mawong@waterboards.ca.gov](mailto:mawong@waterboards.ca.gov).

PAMELA C. CREEDON  
Executive Officer

cc: Mr. Tom Howard, Chief Deputy Director, State Water Resources Control Board  
Ms. Mary-Ann Warmerdam, Director, Department of Pesticide Regulation  
Mr. Mark Black, Agricultural Commissioner, Glenn County  
Mr. Richard Price, Agricultural Commissioner, Butte County  
Mr. Daniel Merkley, Agricultural Coordinator, State Water Resources Control Board  
Mr. Mark Rentz, Deputy Director, Department of Pesticide Regulation  
Mr. Jerry Prieto, President, California Agricultural Commissioners and Sealers Association

**California Environmental Protection Agency**

**Attachment A**

**MOU Pilot Program**

**Quarterly Report – Third Quarter 2006**

**Central Valley Water Board**

**October 2006**

**Background**

A Memorandum of Understanding (MOU) was signed on 29 June 2005 between the Central Valley Regional Water Quality Control Board (Central Valley Water Board), the State Water Resources Control Board (State Water Board), the California Department of Pesticide Regulation (DPR), and the Agricultural Commissioners of Glenn County and Butte County that pertains solely to activities related to the Central Valley Water Board's Irrigated Lands Conditional Waiver Program (Irrigated Lands Program). These activities constitute the MOU Pilot Program.

The MOU is effective for 24 months, or until 30 June 2007. At that time, upon a review by all parties, the MOU may be renewed, revised or terminated. The current contract between the Central Valley Water Board and each of the Agricultural Commissioners was executed on 27 December 2005 and was extended for one fiscal year (from 30 June 2006 to 30 June 2007) to allow for the delay in execution. The contract provides funding for 0.5 PY to each of the Agricultural Commissioners as specified in the MOU. One PY of funding for the second year of the MOU Pilot Program is expected, and the contract will then be amended to add funds and time to the two contracts.

This Attachment A contains the Central Valley Water Board staff's Third Quarter 2006 Report for the MOU Pilot Program. The Butte County and Glenn County Agricultural Commissioners' staff wrote Attachments B and C, respectively, which contain the Third Quarter Reports of their activities.

**Central Valley Water Board Staff Activities under the MOU Pilot Program**

During the third quarter of 2006, the Central Valley Water Board staff liaison met monthly with the Agricultural Commissioners and their staff to inform them of activities under the Irrigated Lands Program. Staff forwarded information on the 2006 storm season monitoring, as well as monitoring data from the UC Davis contract with the Central Valley Water Board.

Several discussions involved ways to modify work tasks to better use the capabilities of the Agricultural Commissioners to support the Irrigated Lands Program. Major items for discussion were the lack of information on the use management practices and their effectiveness to mitigate water quality degradation.

In response to these discussions, the Glenn and Butte County Agricultural Commissioner staff proposes to document management practices within a major agriculturally dominated

drainage in each county. The Sacramento Valley Water Quality Coalition (Coalition) sampling of the drainage will determine whether or not the observed management practices were effective. The Coalition, the respective subwatershed coordinators, and the Central Valley Water Board staff have agreed on these proposals and will be working to show the effectiveness of management practices to protect water quality.

### **Program Support from Agricultural Commissioners and Their Staff**

This quarter's activities performed by Agricultural Commissioners staff have supported the Irrigated Lands Conditional Waiver Program by:

- expanding outreach to other agencies and entities
- starting documentation of management practices within county subwatersheds
- surveying watersheds to better define agricultural drainage
- inspecting pesticide applications and noting effective management practices
- providing outreach to applicators, irrigators and growers about the Irrigated Lands Program
- providing up-to-date information on pesticide use and agricultural operations
- acting as a direct contact for information about the Irrigated Lands Program with other agencies

### **General Findings**

Coordination and resource exchanges have improved as the liaison staff and Agricultural Commissioners become more familiar with each other's programs. The Agricultural Commissioners' staff has expanded their outreach efforts with agencies and groups, such as Resource Conservation Districts (RCDs), subwatershed groups, other Agricultural Commissioners' staff, and the UC Cooperative Extension.

The use of management practices as an effective means to address water quality issues is a goal of the Irrigated Lands Program. The Agricultural Commissioners' projects to survey management practices in a subwatershed in coordination with Coalition monitoring will provide valuable information toward this goal.

### **Recommended Changes to Contract**

Staff is reviewing the recommendations from the Glenn and Butte Agricultural Commissioners' staff liaisons. Staff will continue to work closely with the Agricultural Commissioners and their staff to further the goals of the MOU Pilot Program and the Irrigated Lands Program.

## **Attachment B**

### **MOU Pilot Program Quarterly Report – Third Quarter 2006 Butte County Department of Agriculture October 2006**

As required by contract # 05-183-150-0, the Butte County Department of Agriculture (Butte County) is to provide the Regional Water Quality Control Board (Central Valley Water Board) with a quarterly report of activities as it relates to the scope of work for the Irrigated Lands Program (ILP) contract.

Task 1) *Provide information/maps and inspect and investigate sites for the ILP as authorized by the Central Valley Water Board.*

- A. *Provide currently available maps of the County delineating natural water bodies, constructed agricultural drains and canals to assist the Central Valley Water Board in identifying releases into waters of the state.*

GIS hydrological data collection is ongoing. As more information becomes available the database will be updated. This sub-task was completed and delivered on schedule.

Recommendations: None

- B. *As authorized by the Central Valley Water Board Contract Manager, perform a minimum of 5 pesticide application inspections per year based on water quality issues identified by Central Valley Water Board, Coalition Groups/Individual Dischargers, or the Commissioner.*

A pesticide application inspection was performed at the Gray Lodge wildlife preserve during this quarter, on July 28th. This sub-task is ongoing and as pesticide application activities increase inspections will be performed.

Recommendations: none

- C. *As authorized by the Central Valley Water Board Contract Manager, perform investigations to identify sources of water quality exceedences.*

Butte County staff is assisting Central Valley Water Board staff with a water quality exceedence investigation concerning E-Coli found in the Belding lateral canal drainage in the city of Biggs. The area where samples were taken is being assessed for potential contamination sources.

Recommendations: None

Task 2) *Inspect, assess and document management practices used in agricultural operations to protect water quality.*

- A. *As agreed between the Central Valley Water Board Contract Manager and County Liaison, inspect a minimum of 5 sites to identify management practices that protect water quality and determine their effectiveness.*

Butte County staff continues to evaluate agricultural management practices that protect water quality. To date five site inspections have been performed, the most recent at "Rancho Esquon" completed August 2<sup>nd</sup> and the "Gun Hill Orchard" completed August 8th. This sub-task is ongoing.

Recommendations: The development of a standard checklist of evaluation criteria would be helpful in conducting this task.

- B. *Identify, evaluate and document management practices that are specific and appropriate to activities and operations within the watershed.*

A watershed (the Pine Creek drainage) is being surveyed for existing management practices used by agricultural operations adjacent to the creek. To date, about 1/3 of the watershed has been surveyed.

As agricultural site inspections and surveys are conducted, Butte County staff continues to compile a list of observed management practices.

Recommendations: The watershed survey has been very beneficial in creating opportunities for outreach and management practice observation and evaluation.

- C. *Take part in the development of integrated management practices to protect water quality.*

No other activity to report

Recommendations: None

Task 3) *Assist the Central Valley Water Board in evaluating sample monitoring points for agricultural wastewater discharges within Butte County.*

- A. *Inspect sampling points designated in the Coalition or the California Rice Commission (CRC) Monitoring and Reporting Program within the County. To determine if representative samples of agricultural wastewater discharges can be obtained at the designated sample points and at sampling times.*

This sub-task was completed and delivered on schedule. The sub-task is ongoing and County staff will provide follow-up information as required.

Recommendations: None

- B. Provide a list of pesticides being used in the County and inform the Central Valley Water Board when new chemicals/pesticides are used.*

This sub-task was delivered on schedule and is ongoing. County staff will provide updated information as it becomes available.

Recommendations: None

*Task 4) Coordinate and conduct outreach to growers on management practices that protect water quality.*

- A. Participate in outreach programs to assist the ILP participants in complying with management practices to protect water quality.*

Handouts and brochures that explain the Conditional Waiver, the MOU pilot program, Coalition efforts, and activities within subwatersheds continue to be provided at pesticide permit appointments. The Pine Creek watershed survey has provided opportunities for face-to-face dialogue with growers adjacent to the creek about the ILP and management practices. This sub-task is ongoing and will continue as opportunities for outreach present themselves.

Recommendations: Continue outreach efforts.

- B. Evaluate outreach efforts and help the Central Valley Water Board staff design programs on management practices to protect water quality.*

At this time, Butte County staff has not evaluated outreach efforts. This sub-task is ongoing.

Recommendations: None

*Task 5) Assist Central Valley Water Board staff by providing information and input that will further the implementation of the ILP.*

- A. Coordinate with other agencies associated with agricultural operations on management practices that protect water quality.*

Butte County continues to coordinate with the agricultural offices of Glenn, Tehama, Yuba and Sutter and with members of the Butte-Yuba-Sutter watershed and Resource Conservation Districts. County staff attended 10 meetings related to the ILP this quarter

Recommendations: None

*B. Other activities agreed upon by both parties that fall under the purview of the MOU and this contract.*

No other activities to report.

Recommendations: None

## **Attachment C**

### **MOU Pilot Program Quarterly Report – Third Quarter 2006 Glenn County Department of Agriculture October 2006**

As required by contract # 05-182-150-0, the Glenn County Department of Agriculture (Glenn County) is to provide the Regional Water Quality Control Board (Central Valley Water Board) with a quarterly report of activities as it relates to the scope of work for the Irrigated Lands Program (ILP) contract. Following is a list of the tasks:

Task 1) *Provide information/maps and inspect and investigate sites for the ILP as authorized by the Central Valley Water Board.*

- A. *Provide currently available maps of the County delineating natural water bodies, constructed agricultural drains and canals to assist the Central Valley Water Board in identifying releases into waters of the state.*

The Glenn County Department of Agriculture is currently updating its GIS database by digitalizing non-attributed agricultural parcels that have no current pesticide use permit within the County to provide additional information for the ILP.

Comment: The Arc View GIS pesticide permitting program discussed in previous quarterly report is progressing. There are 33 County Agricultural Commissioner offices in California that have committed to utilizing the program. During the previous quarter the infrastructure for the program has been developed for implementation in at least 15 of the 33 counties. Training manuals are being created and workshops on program capabilities will be held. Estimated time for completion for trial use in Glenn County is November 2006. The contract manager will be kept informed of progress.

- B. *As authorized by the Central Valley Water Board Contract Manager, perform a minimum of 5 pesticide application inspections per year based on water quality issues identified by Central Valley Water Board, Coalition Groups/Individual Dischargers, or the Commissioner.*

Glenn County staff performed four inspections this quarter, completing the required amount called for in this sub-task.

Comment: Overall, individual pesticide applications based upon water quality issues does not appear to be an effective method to determine potential degradation to a watershed. Even though each pesticide application is important to the microenvironment, the influence on total load for sampling



purposes would be minimal. It has been documented that the majority of growers and commercial applicators adhere to water quality conditions through recommendations from their pest control advisors. A suggestion would be to utilize the Pesticide Pre-application Site Inspection process prior to application. This method of evaluation would be more useful and provide an opportunity for outreach to growers and applicators before the application of materials that have a water quality concern are applied. Pre-application inspections address permit conditions for the application of California Restricted Materials, some of which indicate a water quality concern. Other materials that address the same concerns are not California Restricted and do not require a 24 hour notification prior to their application. In Glenn County, our Tri-County Bee Notification program provides the information necessary to perform a pre-site (48 hours notice) since most pesticides that are toxic to bees are also toxic to aquatic life.

- C. *As authorized by the Central Valley Water Board Contract Manager, perform investigations to identify sources of water quality exceedances.*

There have been no water quality exceedances during this quarter that have required an investigation.

Recommendations: Utilize the Pilot Program to the full advantage of the Central Valley Water Board for exceedance investigations.

- Task 2) *Inspect, assess and document management practices used in agricultural operations to protect water quality.*

- A. *As agreed between the Central Valley Water Board Contract Manager and County Liaison, inspect a minimum of 5 sites to identify management practices that protect water quality and determine their effectiveness.*

Glenn County staff has completed this sub-task during this quarter. Of interest was the evaluation of a large-scale grower with 1,400 acres of orchards and 360 acres of rice. Management practices utilized were consistent and have been proven effective throughout the operation. This grower was recently recognized as the "Conservationist of the Year" by the Glenn County Resource Conservation District (RCD) and utilizes EQIP programs that will enhance water quality. Other grower operations evaluated ranged from 40 to 100 acres. Management practices that are in place were observed and documented in each report.

- B. *Identify, evaluate and document management practices that are specific and appropriate to activities and operations within the watershed.*

Glenn County staff will be undertaking a large-scale watershed evaluation within the county. The Walker Creek watershed has approximately 24,000 acres of irrigated cropland. Tasks identified to perform the evaluation include sampling,

outreach to individual agricultural operators, survey development and evaluation with the assistance of UC Extension staff, and documentation of BMPs in place. The watershed is totally contained within Glenn County making collection and dissemination of data collected readily accessible and deliverable. This evaluation will be performed with the full cooperation of the sub-watershed and Coalition.

*C. Take part in the development of integrated management practices to protect water quality.*

There are many management practices already in place within Glenn County and previously documented by the Glenn County Surface Water Stewardship Program. Examples of these practices include micro and drip irrigation systems, recirculation systems, water hold requirements for specific pesticides, and EQIP integrated pest management programs. To date, Glenn County has not developed any additional management practices. During the upcoming watershed evaluation, other effective practices will be documented. This sub-task is ongoing and staff will provide information as practices are recognized or developed.

Recommendations: Perform the watershed evaluation on Walker Creek and determine if there is a need for additional practices to be developed or put in place.

*Task 3) Assist the Central Valley Water Board in evaluating sample monitoring points for agricultural wastewater discharges within Glenn County.*

*A. Inspect sampling points designated in the Coalition or the CRC Monitoring and Reporting Program within the County to determine if representative samples of agricultural wastewater discharges can be obtained at the designated sample points and at sampling times.*

Glenn County staff has recently evaluated potential sites for sampling and has assisted the local sub-watershed to select new sampling locations upstream of previous sampling locations for the Coalition.

Recommendations: Continue to provide the technical support necessary to local sub-watersheds in their sampling site selection process based upon our capabilities.

*B. Provide a list of pesticides being used in the County and inform the Central Valley Water Board when new chemicals/pesticides are used.*

There has been no new request from Central Valley Water Board staff to provide additional information at this time. Staff is prepared to provide 2006 pesticide use information in the first quarter of 2007.

Recommendations: Continue to provide the information necessary when requested.

Task 4) *Coordinate and conduct outreach to growers on management practices that protect water quality.*

A. *Participate in outreach programs to assist the ILP participants in complying with management practices to protect water quality.*

Glenn County staff continues to provide outreach by attending Coalition meetings and participating with its BMP committee. Staff has also initiated outreach and contact with UC Cooperative Extension and the Glenn County Natural Resources Conservation Service (NRCS) office to assist with EQIP programs that may be beneficial to water quality. Staff also attends Glenn County RCD meetings to encourage them to play an active role in water quality. Staff participates in sub-watershed meetings and provides direction as it relates to the ILP to growers within Glenn County when necessary. Since last quarter, Glenn County has mailed, on two separate occasions, current Coalition for Urban and Rural Environmental Stewardship (CURES) newsletters to all 1,150 pesticide permit holders in the County.

Recommendations: Outreach on the sub-watershed level continues to be extremely important. Efforts to reach individuals to participate in the ILP have been more successful. Policies regarding participation are becoming clearer and assistance to sub-watersheds by local Agricultural Commissioners is necessary for the program to be successful.

B. *Evaluate outreach efforts and help the Central Valley Water Board staff design programs on management practices to protect water quality.*

See Task 2.B

Recommendations: Continue to find ways to provide funding for CURES to further their successful efforts in this area.

Task 5) *Assist Central Valley Water Board staff by providing information and input that will further the implementation of the ILP.*

A. *Coordinate with other agencies associated with agricultural operations on management practices that protect water quality.*

Glenn County staff continues to coordinate with the Agricultural Commissioners of Butte, Colusa, Tehama, and Shasta Counties, the Colusa and Shasta-Tehama sub-watersheds, local irrigation districts, UC Cooperative Extension, RCDs, and NRCS offices. This type of coordination and notification is essential

within our agencies. The sharing of information in their possession is necessary for any and all investigative activities that the Central Valley Water Board staff may request. This sub-task is ongoing.

Recommendations: This process may be improved by having funds available to cover additional costs for other agency assistance.

*B. Other activities agreed upon by both parties that fall under the purview of the MOU and this contract.*

Recommendation: Based upon experiences of the previous nine months of the contract, Glenn County staff has the following recommendations for future goals of the program:

- Extend the MOU for the term of the five year Waiver extension, until June 2011
- Re-evaluate the existing contract to include not only funds for a 0.5 person per year, but also additional funding for requested tasks such as sampling and other supplies and training.